

# ANNUAL BOTANY / NATURAL AREA REPORT FISCAL YEAR 1999

Prineville District  
Bureau of Land Management

## I. STAFFING

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## II. MAJOR ACCOMPLISHMENTS

### A. INVENTORY/NEW POPULATIONS FOUND

No species-specific inventory was accomplished this FY.

Through project clearance, monitoring and/or other work, 7 populations of special status plants or other plants of interest were found. This includes populations of *Carex hystericina* (1), *Castilleja chlorotica* (3), *Calochortus longebarbatus* var. *peckii* (2) and *Pediocactus simpsonii* var. *robustior* (1).

The new population of *Carex hystericina* (porcupine sedge) was "discovered" as a voucher specimen in the herbarium, collected by Caroline Lindstedt in the late 1980's. It was verified as *Carex hystericina* and adds a population from the Hay Creek area, near Condon. *Carex hystericina* was not special status in the 1980's.

All three *Castilleja chlorotica* (green-tinged paintbrush) populations were found in the Bear Creek Butte Rx fire project area, only one of which is on BLM land. These populations were to have been excluded from burning.

The two *Calochortus longebarbatus* var. *peckii* (Peck's mariposa lily) populations were found near Antelope Reservoir, within treatment areas for the



Upper Pothook Juniper Control project. Both were excluded from mechanical treatment but will be allowed to burn, if burning is employed. This is a significant extension of this species' range for Prineville BLM.

The *Pediocactus simpsonii* var. *robustior* (hedgehog cactus) population was found by Jay Kerby and joins others in the Sutton Mtn. area.

### B. MONITORING

A total of 27 populations of special status plants were monitored. These included *Astragalus diaphanus* var. *diurnus* (3 populations), *Astragalus peckii* (5), *Astragalus tyghensis* (4), *Botrychium pumicola* (2), *Carex hystericina* (1), *Castilleja chlorotica* (2), *Juncus torreyi* (2), *Pilularia americana* (1), *Ranunculus reconditis* (1), *Talinum spinescens* (1) and *Thelypodium eucosmum* (5).

*Astragalus diaphanus* var. *diurnus* (South Fork John Day milkvetch) continues to be secure although minor problems are noted. One of our main populations adjacent to Johnson Creek is receiving an increasing amount of "partying", as evidenced by campfire rings, trash, broken bottles and target shooting. Another population which was impacted by livestock trampling in 1998 was not affected in 1999. A third population

has been jeopardized by livestock salting but wasn't affected this year. We will need to work on these problems with the range people. Plants were significantly suppressed this year due to the cold, dry spring.

*Astragalus peckii* (Peck's milkvetch) on BLM land in the Urban Interface area continues to be secure. One area where hay was fed in 1998 was not impacted in 1999. Privately-owned habitat continues to be developed and lost. Flowering was exceptional this year.

The population of *Astragalus tyghensis* (Tygh Valley milkvetch) near Tygh Valley which was weeded last year was weeded again. It appears that the diffuse knapweed on this site is coming under control, especially since the adjacent orchard has been developed. Three other populations on Criterion were monitored. One remains vigorous, one discovered in 1998 proved to be more extensive than first documented, and a third, accidentally "treated" by herbicide in 1998 appears to be gone, at least for the time being. It is hoped that it will revive through any remaining seed bank.

Of the two populations of *Botrychium pumicola* (pumice grape fern) monitored, one had been logged during the winter. Plants were found in the leave areas, but the year was extremely dry and vegetative expression appeared to be minimal. Steve Castillo took great care to insure the leave areas were, in fact, left. We'll follow up on this. Another population was simply relocated after a number of years and appears secure.

One population of *Castilleja chlorotica* (green-tinged paintbrush) on West Butte was monitored to determine approximate phenology. Only one visit was made this year, and on May 6 there was still snow on the north slopes! Another population near Horse Ridge, burned accidentally 3 years ago, was observed. Plants remain absent from the burned portion but are surviving in the unburned areas.

A population of *Carex hystericina* (porcupine sedge) was visited along Ten-Mile Creek to verify its

identification.

Two populations of *Juncus torreyi* (Torrey's rush) were visited. One population near Sutton Mtn. has been fenced as part of a spring development. The population is vigorous and it will be interesting to see if it expands as the wet area increases. Another population was monitored near Trout Creek and appears secure.

Our only known population of *Pilularia americana* (American pillwort) was visited. It's interesting that this population is on the periphery of a constructed stock pond near Hampton. Once again, no plants were found. The plant can remain dormant for years until the proper moisture conditions are present to rejuvenate the wooly sporocarp.

Our only population of *Ranunculus reconditis* (Dalles Mtn. buttercup) was visited on Mill Creek Ridge. This is on the property recently acquired from The Nature Conservancy and represents the only federally-owned population known. It appears to be secure.

A population of *Talinum spinescens* (spiny farnetflower), on the 10-Mile acquisition, was visited with Stu Garrett, of the Native Plant Society of Oregon (NPSO). Much to our chagrin, the dry spring caused the plants to dry before they flowered. Impressive, little brown, dried up leaves, they were.

Five populations of *Thelypodium eucosmum* were visited. The Dayville Cemetery population received much-needed exclosure maintenance. A population near Spray was revisited for the first time in a number of years with no problems noted. Finally, three populations in the Bologna Basin allotment, near Kimberly, were visited for the first time since discovered in 1994. One population was fine, one was not relocated and a portion of the third has suffered from heavy livestock use. Except for these isolated instances, this species is generally secure in the Prineville District.

### C. CLEARANCES

A total of 28 field clearances were completed encompassing 17,193 acres. Juniper thinning and



fuels reduction projects accounted for over 15,000 acres, with the rest consisting of minor rights-of-way, an OMD maneuver area and a cave development plan.

### III. OTHER WORK

#### A. NATURAL AREA MANAGEMENT

The second year of the permit system for **The Island ACEC/RNA** is behind us with no problems and good results. Total visits for FY 1999 were 65, an 85.5% decrease from the high of 564 in 1996. Permitted visitors included a geology group from COCC, a woodland inventory group from the Forest Service (training) and the NPSO.

The Island received its annual weed treatment courtesy of the High Desert Chapter of NPSO. A group of 11 hand-pulled medusahead as we have for the last several years. A handful of large infestations were found, but the total number of plants seem to be less than in years past.

An interesting side note is that a population of plateau whiptail lizards has been found on The Island, apparently expanding from the campground below. This is a SW desert endemic which is parthenogenic (i.e., females reproduce by themselves). The campground population must have become established from some campers, as this population is quite disjunct and therefore of scientific interest.

Rich Niederhof, a now-retired COCC forestry professor, volunteered his surveying class to run lines around the **Powell Butte ACEC/RNA**. Nearly all the lines have been surveyed and flagged, for future fence construction. JoAnne Armson facilitated this.

Steve Gibbons, the National Natural Landmark coordinator for the Pacific Northwest (NPS) visited **Horse Ridge NNL/ACEC/RNA** as part of his annual field trip to Oregon. It is likely he will approach BLM with NNL designation for The Island. The perimeter fence was also maintained.

**Benjamin** and **Forest Creeks** ACEC/RNAs were not

Nineteen botanical waivers were granted, primarily for fences and fence reconstruction, weed control and minor rights-of-way.

visited during FY 1999.

#### B. CHALLENGE COST SHARE/ COOPERATIVE EFFORTS/OUTREACH

Two challenge cost share projects were funded during FY 1999. The first was the ninth year of a long-term demographic monitoring study of *Astragalus tyghensis* conducted by Oregon Dept. of Agriculture. The study area includes lands near the White River, in north-central Oregon. The second was the second year of a projected five-year study to determine the effects of various disturbances on *Botrychium pumicola*, a species endemic to the lodgepole pine pumice zone near La Pine. Results of both projects are pending.

Specimens of *Mertensia longiflora* (small bluebells) were collected and sent to a research scientist at Duke University.

One day was spent with people from NPSO and the Deschutes NF compiling species lists for the Oregon Plant Atlas Project, and Ochoco NF botanists spent a day with Gail conducting *Thelypodium eucosmum* monitoring. Ron participated in a one-day *Salix* field trip with DNF botanists.



Ron tried to take a high school biology class on a field trip through the Madras-Ashwood-Mitchell area, to look at the dominant plant communities and endemic species of this portion of the state. Unfortunately, impassible roads, due to the late spring, rendered the trip less than desirable.

A collection permit was issued to a contract botanist to collect members of the genus *Arabis* (rockcress) for an academic researcher.

Ron presented a slide show on the district's special status plants to an evening COCC class in Redmond. The adult class was designed to introduce people to the natural history of Central Oregon.

Stu Garrett of NPSO, a supporter of the Criterion Acquisition, was taken on a tour of the Criterion and Tenmile lands. Along with the *Talinum spinescens* mentioned earlier, he was shown *Astragalus tyghensis* and *Lomatium farinosum* var. *hamblenieae*, and was given a general overview of these important public lands.

#### **C. OTHER PROGRAM SUPPORT**

Botanical input continued to be provided to all resource management programs as needed, especially as related to the range, wildlife and forestry programs. Assistance with plant identification continued,

particularly in support of ecological site inventory of the Sutton Mountain lands and for rangeland monitoring. Continual input is required for allotment evaluations, wild and scenic river plans, OHV plans and the like.

#### **D. OTHER ITEMS OF INTEREST**

For a host of reasons, Gail cut back to half time during the 1999 field season, and as a result, we concentrated on support work for the other resources (clearances) and only monitored the plant populations with the greatest need. The growing season was also weird, with many portions of the district maturing early after a late start. As a result, many of the "programmatic" field work wasn't accomplished this year.

As it turns out, FY 1999 was Gail's last year with significant field work for Prineville BLM as she has determined that she needs to go a different direction in 2000. You're still likely to see her on occasion, though, as she'll be available to provide some help if needed. To keep some degree of stability and continuity in the botany program, coupled with ongoing personnel changes and shifts, JoAnne Armson will begin to fill Gail's shoes

starting this coming spring. While the details have yet to be worked out, she comes with a wealth of ability, some very good plant skills and a willingness to do the work



## IV. GEOAREA STATISTICS

### High Desert

7 botanical waivers

10,072 acres botanical clearance (juniper thinning, prescribed fire, forest treatments)

5 new populations found (*Castilleja chlorotica* - 3; *Calochortus longebarbatus* var. *peckii* - 2)

3 populations monitored (*Castilleja chlorotica* - 2; *Pilularia americana* - 1)

### Lower Deschutes

1 botanical waiver

11 acres botanical clearance (parking lot, sediment pond)

8 populations monitored (*Astragalus tyghensis* - 4; *Carex hystericina* - 1; *Juncus torreyi* - 1; *Ranunculus reconditis* - 1; *Talinum spinescens* - 1)

### Lower John Day

3 botanical waivers

6,000 acres botanical clearance (prescribed fire)

2 new populations found (*Carex hystericina* - 1; *Pediocactus simpsonii* var. *robustior* -)

1 population monitored (*Juncus torreyi*)

### Upper Deschutes

6 botanical waivers

1,110 acres botanical clearance (R/Ws, fence, OMD maneuver area)

7 populations monitored (*Astragalus peckii* - 5; *Botrychium pumicola* - 2)

### Upper John Day

1 botanical waivers

8 populations monitored (*Astragalus diaphanus* var. *diurnus* - 3; *Thelypodium eucosmum* - 5)